REMARKS

Applicants appreciate the Examiner's thorough consideration provided the present application. Claims 1-21 are now present in the application. Claims 1, 6 and 17 have been amended. Claims 19-21 have been added. Claims 1, 6 and 17 are independent. Reconsideration of this application, as amended, is respectfully requested.

Reasons For Entry Of Amendments

It is respectfully requested that the present amendments be entered into the Official File because the amendments to the claims are believed to place the present application into condition for allowance. In the alternative, if the Examiner persists in maintaining his rejections, it is respectfully requested that the Examiner enter the amendments for the purposes of Appeal.

Claim Rejections Under 35 U.S.C. §112

Claims 1-18 rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. This rejection is respectfully traversed.

In view of the foregoing amendments, it is respectfully submitted that this rejection has been addressed. In particular, claims 1, 6 and 17 have been amended to recite that the data encoding the preview image is extracted from the stream of data on the fly, and is then written as a thumbnail file, thereby creating the preview image. Support for the amendments to claims 1, 6 and 17 can be found in paragraph [036] of the specification as originally filed.

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Accordingly, all pending claims are now definite and clear. Reconsideration and withdrawal of the rejection under 35 U.S.C. § 112, second paragraph, are therefore respectfully requested.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-2, 6-10, 15 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Searby, EP 0589724, in view of Liu, U.S. Patent No. 7,302,118. Claims 3, 11 and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Searby in view Liu, and further in view of Patton, U.S. Patent 6,795,209. Claims 4 and 12-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Searby in view of Liu, and further in view of Zhou, U.S. Patent Application Publication No. 2002/0015447. Claims 5 and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Searby in view of Liu, and further in view of Baggs U.S. Patent Application Publication No. 2003/0231801. These rejections are respectfully traversed.

Complete discussions of the Examiner's rejections are set forth in the Office Action, and are not being repeated here.

While not conceding to the Examiner's rejections, but merely to expedite prosecution, as the Examiner will note, independent claims 1, 6 and 17 have been amended.

Independent claim 1 now recites a combination of elements including "wherein the controller creates a preview image with a lower data size than the scanned image from at least part of the data encoding the scanned image, wherein the controller extracts data encoding the

preview image from the stream of data on the fly, and writes the extracted data to a thumbnail file, thereby creating the preview image."

Independent claim 6 now recites a combination of steps including "creating a preview image with a lower data size than the scanned image from at least part of the data encoding the scanned image, wherein data encoding the preview image is extracted from the stream of data on the fly, and written to a thumbnail file, thereby creating the preview image."

Independent claim 17 now recites a combination of steps including "providing at least part of a thumbnail file associated with one of the master files to an archive manager, said part of the thumbnail file including data encoding a preview image corresponding to the scanned image with a lower data size than the scanned image, whereby the archive manager can display the parts as survey previews to the user for selection, wherein the data encoding the preview image is extracted from the stream of data on the fly and is written to a thumbnail file, thereby creating the preview image."

Support for the amendments to claims 1, 6 and 17 can be found in paragraph [036] of the specification as originally filed. Applicants respectfully submit that the combinations of elements and steps set forth in claims 1, 6 and 17 are not disclosed or suggested by the references relied on by the Examiner.

As embodied in paragraphs [035]-[036] of the specification as originally filed, the data encoding the original scanned image is passed in a stream from the scanner 1 to the controller 10. The controller then scales down the data of the original scanned image *when the data of the original scanned image arrives at the controller 10* so as to generate a preview image on the fly (see paragraph [036]). The scaled-down data is then sent by the controller 10 to the storage

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means 13 as a thumbnail file (see paragraph [037]). The data encoding the original scanned image is also sent by the controller 10 to the storage means 13(see paragraph [038]).

In other words, in the present invention, the extracted data from the data encoding the original scanned image is *not extracted after* the data encoding the original scanned image is stored in the storage means. Instead, the extracted data is extracted *when the data of the original scanned image arrives at the controller;* i.e., the extracted data is extracted from the data encoding the original scanned image *on the fly. After* the data is extracted, the extracted data is written to a thumbnail file, thereby *creating the preview image.*

The Examiner has correctly acknowledged that Searby fails to teach extracting data encoding the preview image from the stream of data as recited in claims 1, 6 and 17. Therefore, it is believed that Searby also fails to teach "the controller extracts data encoding the preview image from the stream of data on the fly, and writes the extracted data to a thumbnail file, thereby creating the preview image" as recited in claim 1, "wherein data encoding the preview image is extracted from the stream of data on the fly and is written to a thumbnail file, thereby creating the preview image" as recited in claim 6, and "wherein the data encoding the preview image is extracted from the stream of data on the fly and is written to a thumbnail file in order to create, thereby creating the preview image" as recited in claim 17.

Liu fails to cure the deficiencies of Searby. In particular, Liu describes a method for transforming a digital image including a main image and associated metadata in accordance with a parameter. Liu's method includes checking a compression tag contained in the metadata of the digital image, wherein the digital image is obtained from a file stored in the Exchangeable Image

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File ("EXIF") format, to determine whether a thumbnail image contained in the metadata of the digital image is in a compressed JPEG format.

However, Liu does not disclose or suggest extracting data encoding the preview image from the stream of data <u>on the fly</u>. More specifically, the EXIF stream 220 of Liu contains at least one digital image in the format illustrated in Fig. 2, having a main image 204, simple metadata 206 and complex metadata 208, such as a thumbnail image or audio data. In other words, <u>the thumbnail image</u> in the EXIF stream 220 of Liu *has already been created* when the EXIF stream 220 is formed. Therefore, the thumbnail image in Liu *has been created <u>before</u> it can be extracted from the EXIF stream 220.* Unlike Liu's teaching that the thumbnail image pre-exists before it can be extracted, the thumbnail file in the claimed invention is *created* by extracting the stream of data on the fly. Accordingly, Liu fails to teach "the controller *extracts* data encoding the preview image from the stream of data *on the fly,* and *writes the extracted data to a thumbnail file, thereby creating* the preview image" as recited in claim 1, "wherein data encoding the preview image is *extracted* from the stream of data *on the fly* and is *written to a thumbnail file, thereby creating* the preview image" as recited in claim 6, and "wherein the data encoding the preview image is *extracted* from the stream of data *on the fly* and is *written to a thumbnail file, thereby creating* the preview image" as recited in claim 17.

With regard to the Examiner's reliance on the secondary references, these references have only been relied on for their teachings against some dependent claims. These references also fail to disclose the above combinations of elements and steps as set forth in amended independent claims 1, 6 and 17. Accordingly, these references fail to cure the deficiencies of Searby.

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Accordingly, none of the utilized references individually or in combination teach or suggest the limitations of amended independent claims 1, 6 and 17. Therefore, Applicants respectfully submit that amended independent claims 1, 6 and 17 clearly define over the teachings of the utilized references.

In addition, claims 2-5, 7-16 and 18 depend, either directly or indirectly, from independent claims 1 and 6, and are therefore allowable based on their respective dependence from independent claims 1 and 6, which are believed to be allowable.

In view of the above remarks, Applicants respectfully submit that claims 1-17 clearly define the present invention over the references relied on by the Examiner. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103 are respectfully requested.

Additional Claims

Claims 19-21 have been added for the Examiner's consideration. Support for claims 19-21 can be found in paragraph [036] of the specification as originally filed. Applicants respectfully submit that claims 19-21 are allowable due to their respective dependence on independent claims 1, 6 and 17, as well as due to the additional recitations included in these claims. Favorable consideration and allowance of claims 19-21 are respectfully requested.

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CONCLUSION

All the stated grounds of rejection have been properly traversed and/or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently pending rejections and that they be withdrawn.

It is believed that a full and complete response has been made to the Office Action, and that as such, the Examiner is respectfully requested to send the application to Issue.

In the event there are any matters remaining in this application, the Examiner is invited to contact Cheng-Kang (Greg) Hsu, Registration No. 61,007 at (703) 205-8000 in the Washington, D.C. area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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